

-2-

Crippen
10/074,003
P12663

In the claims:

1-9. (Previously Cancelled).

10. (Currently amended) A space transformer comprising:

a silicon medium having a land grid array side and a semiconductor side opposite the land grid array side; and

a predetermined contact pattern comprising electrically conductive material disposed in an inner region of the silicon medium and defining electrical contact zones providing double sided electrical contacts for the space transformer, the contacts comprising:

land grid array side contacts disposed on the land grid array side of the silicon medium and having their largest dimension and their pitch in the order of mils to define a macro-pitch scale, the land grid array side contacts further being configured to be connected to corresponding ones of contacts of a test card printed circuit board of a test card assembly; and

semiconductor side contacts disposed on the semiconductor side of the silicon medium and having their largest dimension and their pitch in the order of microns to define a micro-pitch scale, the semiconductor side contacts further being configured to be connected to corresponding ones of contacts of a probe head of the test card assembly, the electrical contact zones further being disposed to convert a macro-pitch scale of the land grid array side contacts to the micro-pitch scale of the semiconductor side contacts.

-3-

Crippen
10/074,003
P12663

11. (Original) The space transformer according to claim 10, wherein the silicon medium comprises a first silicon layer and a second silicon layer, the contact pattern being disposed between the first silicon layer and the second silicon layer.
12. (Previously Amended) The space transformer according to claim 11, wherein the second silicon layer defines at least one via therein, at least some of the electrically conductive material being located in the at least one via.
13. (Original) The space transformer according to claim 11, further comprising an adhesion promoter disposed between the electrically conductive material and the first silicon layer.
14. (Currently amended) A space transformer comprising:
 - a silicon medium having a land grid array side and a semiconductor side opposite the land grid array side and further comprising a first silicon layer defining a plurality of vias therein and a second silicon layer disposed on the first silicon layer;
 - a predetermined contact pattern comprising copper and being disposed in an inner region located between the first silicon layer and the second silicon layer, at least some of the copper being disposed in the plurality of vias for defining electrical contact zones providing double-sided electrical contacts for the space transformer, the contacts comprising:

-4-

Crippen
10/074,003
P12663

land grid array side contacts disposed on the land grid array side of the silicon medium and having their largest dimension and their pitch in the order of mils to define a macro-pitch scale, the land grid array side contacts further being configured to be connected to corresponding ones of contacts of a test card printed circuit board of a test card assembly; and

semiconductor side contacts disposed on the semiconductor side of the silicon medium and having their largest dimension and their pitch in the order of microns to define a micro-pitch scale, the semiconductor side contacts further being configured to be connected to corresponding ones of contacts of a probe head of the test card assembly, the electrical contact zones being disposed to convert a macro-pitch scale of the land grid array side contacts to the micro-pitch scale of the semiconductor side contacts.

15. (Original) The space transformer according to claim 14, further comprising a layer of adhesion promoter disposed between the electrically conductive material and the first silicon layer.

16-17. (Cancelled)

18. (New) A test card assembly comprising:

a test card printed circuit board having first contacts thereon;
a probe head having second contacts thereon; and
a space transformer comprising:

-5-

Crippen
10/074,003
P12663

a silicon medium having a land grid array side and a semiconductor side opposite the land grid array side; and

a predetermined contact pattern comprising electrically conductive material disposed in an inner region of the silicon medium and defining electrical contact zones providing double-sided electrical contacts for the space transformer, the contacts comprising:

land grid array side contacts disposed on the land grid array side of the silicon medium and having their largest dimension and their pitch in the order of mils to define a macro pitch scale, the land grid array side contacts further being connected to corresponding ones of the first contacts; and

semiconductor side contacts disposed on the semiconductor side of the silicon medium and having their largest dimension and their pitch in the order of microns to define a micro-pitch scale, the semiconductor side contacts further being connected to corresponding ones of the second contacts, the electrical contact zones further being disposed to convert a macro-pitch scale of the land grid array side contacts to the micro-pitch scale of the semiconductor side contacts.

19. (New) The assembly according to claim 18, wherein the silicon medium comprises a first silicon layer and a second silicon layer, the contact pattern being disposed between the first silicon layer and the second silicon layer.